ORIGINAL

0000130636

BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF SONORAN SOLAR ENERGY, LLC, IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES, SECTIONS 40-360, et seq., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING CONSTRUCTION OF A 500KV GEN-TIE LINE AND SWITCHYARD ORIGINATING AT THE PROPOSED SONORAN SOLAR ENERGY PROJECT SWITCHYARD AND TERMINATING AT THE JOJOBA SUBSTATION LOCATED IN MARICOPA COUNTY, ARIZONA.	Docket No. L-00000UU-11-0337-00162 Case No. 162 **NOTICE OF FILING SUMMARIES OF EXPECTED TESTIMONY OF APPLICANT'S WITNESSES**

Pursuant to the Procedural Order dated September 9, 2011 the Applicant attaches summaries of the expected testimony of its witnesses.

DATED this 21st day of October, 2011.

JENNINGS, STROUSS & SALMON, P.L.C.

Arizona Corporation Commission
DOCKETED
OCT 21 2011
DOCKETED BY

By _____
Kenneth C. Sundlof, Jr.
One East Washington Street, Suite 1900
Phoenix, Arizona 85004-2554
Attorney for Applicant

ORIGINAL and 25 copies filed this 21st day of October, 2011, with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

AZ CORP COMMISSION
DOCKET CONTROL
2011 OCT 21 P 3:19
RECEIVED

COPY mailed this 21st day of October, 2011, to:

Janice Alward, Chief Counsel
Arizona Corporation Commission
1200 West Washington
Phoenix, AZ 85007

Lyn Farmer, Chief Administrative Law Judge
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Steve Olea, Director Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

By: Michelle Mason

Sonoran Solar Energy, LLC 500 kV Gen-Tie and Switchyard Project
Docket No. L-00000UU-11-0337-00162
Case No. 162

WITNESS SUMMARY

Of Scott Busa

Scott Busa is employed by NextEra Energy Resources as its Executive Director for Solar Business Development. Mr. Busa oversees the team responsible for the late stage development, permitting, and contract compliance for utility scale solar projects throughout the United States. Mr. Busa has 24 years experience in the electric utility industry and has been employed by NextEra Energy for 22 years.

Using Exhibit S-005, Mr. Busa will explain the corporate structure of the applicant. The project applicant is Sonoran Solar Energy, LLC who will own all the assets, permits, and otherwise for this particular project. Sonoran Solar Energy, LLC is a wholly owned and controlled subsidiary of NextEra Energy Resources, LLC. NextEra Energy Resources, LLC is an independent power producer which has facilities and operations in 26 states, Canada and Spain. NextEra Energy Resources, LLC is a wholly owned subsidiary of NextEra Energy, Inc, which is a Florida based holding company with two principle operating subsidiaries. One is NextEra Energy Resources, LLC, and the other is Florida Power and Light Company. FPL is a regulated utility that operates exclusively in the state of Florida.

Using Exhibit S-004, Mr. Busa will discuss the facilities owned or operated by NextEra. Mr. Busa will discuss that the company has been very active in wind development in recent years, particularly in the Midwest and Texas. In addition, NextEra Energy Resources owns and operates three nuclear facilities, numerous natural gas facilities, and the Solar Electric Generating Systems in California's Mojave Desert. NextEra has recently begun construction on the Perrin Ranch Wind Project located in Northern Arizona.

Sonoran Solar Energy, LLC 500 kV Gen-Tie and Switchyard Project
Docket No. L-00000UU-11-0337-00162
Case No. 162

WITNESS SUMMARY

Of Brandon Stankiewicz

Brandon Stankiewicz is employed by NextEra Energy Resources, LLC as a Project Director in its Solar Development group. Mr. Stankiewicz has been with NextEra for just over 3-years and prior to that he served as a Captain in the United States Army. He received a Bachelors of Science in History and Systems Engineering from the U.S. Military Academy at West Point in 2003.

Mr. Stankiewicz, as the project manager for this effort, is primarily responsible for the permitting and entitlement of this project site. Other team members in NextEra's Solar Development group are focused on developing the off-take arrangements for the project, and Mr. Stankiewicz supports them when required.

Mr. Stankiewicz will explain that the Sonoran Solar Energy Project (SSEP) is a photovoltaic facility located approximately 14-miles south of Buckeye in Maricopa County, AZ. The location of the project is generally depicted on Exhibit S-006. The facility will be 300MW, and will be constructed in three 100MW phases. The plant would use sunlight for power generation and is sited on approximately 2,000 acres of Bureau of Land Management (BLM) land. No water is required for power generation, although approximately 33 acre feet per year would be used for panel washing, industrial purposes, and potable use by employees. SSEP would employ 300-400 people during the 39-month construction period and 16-20 people during full-time operations.

Mr. Stankiewicz will explain that because the solar generation has no thermal component, it is not subject to a siting review and approval by the Arizona Corporation Commission. This case involves the siting of the project substation and generation-tie line connecting the SSEP to the existing Jojoba Substation.

Mr. Stankiewicz will describe that the generation tie-line (gen-tie), will be located immediately to the west of the photovoltaic project, again approximately 14-miles south of Buckeye, as depicted on Exhibits S-006 and S-007. The purpose of the gen-tie is to link the solar facility to the Jojoba Substation, where the power can be delivered to the regional transmission grid.

The gen-tie is sited almost exclusively on BLM land, the only exception being a very short portion immediately north of the Jojoba Substation. The location of the line, and of the solar facility, triggered the requirement for an Environmental Impact Statement process under the National Environmental Policy Act. Devin Petry will discuss this process during his testimony.

The immediate area surrounding the project is heavily developed and contains numerous infrastructure projects. The Jojoba Substation is a major regional Substation and 4x 500 kV lines currently traverse the area. Two of these lines occupy 1-mile wide utility corridors designated by the BLM. SR-85 is located immediately west of the Substation and would be the termination point of the gen-tie. To the immediate south of the gen-tie route in the southern end of the utility corridor, there are four separate natural gas lines operated by both Transwestern and El Paso.

There are also several industrial facilities in the area. The Southwest Regional Landfill is immediately south of the Jojoba Substation. The Phoenix City Landfill, the Lewis State Prison complex, and a tree farm are located west of SR-85. Finally, a mineral processing facility and pit mine are located on BLM land in the project vicinity.

Mr. Stankiewicz will describe that the topography in this area is extremely flat. There are various mountain ranges and hills in the surrounding areas, notably the Sonoran Desert National Monument to the south and the Buckeye hills to the north. To the west and east, there is mostly agricultural land and dispersed residences. The Gila River is also to the west of the project across SR-85. With the exception of the Monument, there are no known particularly sensitive resources in the area and overall, this area already has a significant amount of industrial or agricultural development. This is one of the main reasons why the Applicant chose to site the gen-tie and power plant in this location.

Mr. Stankiewicz will describe the two proposed routes for this gen-tie. Each route will begin at the substation located within the solar facility footprint and end at the Jojoba Substation, which is operated by Salt River Project (SRP).

The Preferred Route is approximately 3.2 miles in length and parallels stretches of both the Kyrene and Pinal West transmission lines. The Preferred Route is located essentially in the middle of each BLM utility corridor and would also run in parallel to the solar facility access road. The route would leave the facility substation, travel west until it crosses under the Kyrene line, then travel generally southwest until it comes into alignment with the Jojoba Substation. At that point, the line would turn west and continue to its final turn just north of the Substation.

The Alternative Route is 3.5 miles in length and has a minor route variation. In this case, the route would run to the south as it leaves the solar facility substation until it comes in line with the Jojoba Substation. At that point, it would turn west and follow essentially the same route as the Preferred Route.

The Applicant proposed an alternate route to allow flexibility, but believes that the Preferred Route is a better option, as will be discussed later.

The Sonoran Solar Substation is an approximately 3-acre area located on the western edge of the solar facility. The main purpose of this Substation is to collect the various 34.5kV feeder lines coming from the solar fields and transform the current to 500kV. That current will then be transmitted via the gen-tie to the

Jojoba Substation. The Substation will consist primarily of 34.5kV and 500kV buses, circuit breakers, switches, and main step up transformers. Exhibit S-014 is a conceptual depiction of the Substation.

The Jojoba Substation is an existing 500kV station jointly owned by members of the Palo Verde Eastern Transmission System. The Jojoba Substation is operated by SRP. During the Facility Design Study, SRP identified bay 7E as the point of interconnection. As shown in Exhibit S-017, that bay is located on the north side of the Substation and SRP will construct the interconnection facilities to allow the interconnect of the gen-tie. The Jojoba Substation is rather large and the bays on the north side are unoccupied, so the interconnection will not require that the Substation footprint be expanded or modified. All new equipment would be installed in the existing Substation footprint.

Mr. Stankiewicz will then provide a virtual tour of the project site, using Exhibits S-011 and S-012 as base maps.

Mr. Stankiewicz will describe that the northern of the two alignments is preferred for several reasons. First, it's the shorter of the two possible routes, which means this alignment is the most cost effective and will take the least amount of time to construct. As shown on Exhibit S-009, the route parallels the facility access road, which will minimize the number and distance of new spur roads that must needed in order to reach the tower installation locations.

In addition the preferred route does the best job of meeting certain criteria the BLM expressed to the Applicant during the siting process. BLM expressed a strong interest in keeping the line parallel to existing transmission whenever possible. Since the Sonoran Desert National Monument is located south of this area, the BLM expressed concern for sensitive viewers. By keeping parallel and as close as is safely achievable, the gen-tie can better "blend" into the background with existing transmission and occupy an already compromised area in the landscape. This should serve to reduce the visual impacts of the line on the Monument. Additionally, BLM is always concerned with impacts to habitat and as explained above, the preferred route allows the Applicant to minimize temporary disturbance during construction. Finally, the preferred route sits more or less in the "middle" of each corridor. This will make future utility expansion easier and minimize the potential for difficult crossings points as additional infrastructure is built out.

Using Exhibits S-015 and S-016 Mr. Stankiewicz will describe the physical appearance of the structures. Either gen-tie alignment would be constructed using a combination of H-Frame and 3-pole structures. The H-Frames would be used to support the conductor on the straight runs of the gen-tie. A conceptual H frame design is depicted in Exhibit S-015. The 3-pole structures would be located where the route turns. Exhibit S-016 depicts a typical 3-pole turning structure. The H-Frames and 3-pole structures would be anywhere from 90-120 feet high depending on the site specific conditions at each structure location. Each alignment would use approximately 19-structures.

Mr. Stankiewicz will then provide a cost comparison of the alternative alignments. Exhibit S-013 shows a side-by side of the cost attributes of each alignment. Both alternatives are sited almost entirely on BLM land. The length of each line is the greatest factor in determining cost. In this case, ROW costs were calculated by summing the cost per acre for BLM ROW (5-acres x $188.34 / acre) and the cost to purchase a small quarter of section land north of the Substation ($1.62 MM). Construction costs were determined by multiplying the miles of transmission by the estimated cost per mile ($1.3 MM). The preferred route provides a lower cost solution and best accomplishes the goals of both Sonoran Solar and BLM.

Mr. Stankiewicz will then describe the purpose and need for this transmission project. This gen-tie is intended to deliver power generated at the Project to the regional transmission grid and ultimately to the project's customers. In this case, it is difficult to explain the purpose of the gen-tie without also including the purpose of the overall solar project. The overall purpose for this project is to responsibly generate renewable electricity and capitalize on Arizona's abundant solar resource. The project will do this in a manner that minimizes the use of water, a scarce resource in Arizona. The project will also avoid the use of fossil fuels. Finally, the project is sited appropriately to best minimize impacts to any sensitive natural resources and maximize the use of existing infrastructure.

The project is meant to address State and regional renewable energy standards set forth by the appropriate regulatory bodies. In Arizona, the Corporation Commission has mandated that regulated utilities receive 15% of their energy from renewable sources by 2025. SRP and neighboring states such as California and Nevada have similar renewable energy goals.

Arizona is a state with an abundant solar resource and one of the best in the country. Other sources of renewable power such as wind and geothermal resources are much less abundant in Arizona. The Applicant feels that solar is a natural and appropriate fit for this state. Arizona's elected officials such as Governor Jan Brewer, Corporation Commissioners, and numerous local elected officials have expressed a strong desire to make Arizona a solar capital, and this project would help achieve that goal.

Mr. Stankiewicz will then describe other project benefits. The construction and operation of this solar project and gen-tie would have many positive effects on the local economies in the form of tax revenue, increased opportunities for employment, and increased consumption of locally provided goods and services. During construction, the Applicant would employ up to 400 workers. During operations, there is the potential for up to 20 open, full time positions, and other opportunities for specialty contractors to provide services to support plant operations. The project is expected to generate significant property tax revenue. The increased number of workers in the area will benefit the owners of hotels, restaurants, stores of all types, and other business as well.

Mr. Stankiewicz will then describe the public outreach and involvement process which began in 2008. A list of outreach activities and other materials are available in Exhibit J of the Application.

The BLM's NEPA process requires that a comprehensive outreach process take place. Certain parts of this outreach are orchestrated by BLM and supported by the project applicant. The Applicant supported scoping meetings and comment solicitation sessions with BLM in Phoenix, Gila Bend, and Buckeye in the spring of 2009 and the fall of 2010. The Applicant also provided assistance to BLM for various status update newsletters, the construction of their project website, and in numerous responses to public inquiries.

In addition to the BLM organized outreach, the Applicant has been active in the project area for several years, meeting with various municipalities, government agencies, and NGOs to discuss various aspects of project permitting and to provide updates. The Town of Buckeye and City of Goodyear have been particularly involved and helpful. The Applicant also met with various civic organizations and individuals to discuss the project, namely the Rainbow Valley Coalition and numerous local residents. The Applicant also hosted open houses to describe the project to attendees, and has had a project website operational for the last 2-years. Finally, the Applicant posted signs and advertisements for this meeting as required by the procedural order.

Mr. Stankiewicz will then discuss the public response. Important here is that the project was first planned as a concentrated solar thermal project, which would use significant water and natural gas. Eventually, the project was converted to a photovoltaic project. The majority of the comments expressed by the public fall into four general categories, and these comments were made when the project was still configured as a solar thermal generating facility.

First, towns and residents expressed a concern over the amount of water that the facility would use and the effects it might have on pumping wells in the area. Second, the CSP facility would have used natural gas to add supplemental generation to the plant's total output. Third, there were concerns that the facility would limit wildlife movement through the area, particularly through the larger desert washes on the eastern side of the overall project footprint. Finally, there were concerns about visual impacts to the SDNM to the south and the closest residences to the east of the project.

When the Applicant made the decision to change the fundamental design of this project in the beginning of 2011, it took each of the above concerns into consideration when redesigning the project. The new PV facility will use a very small quantity of water for operations and will not cause any adverse impacts to adjacent pumping wells or the long term health of the local aquifers. The PV facility will not use any fossil fuels for power generation – it will be a purely renewable facility. The PV facility is 30% smaller than the previous CSP facility and deliberately avoids the larger desert washes east of the current footprint which provide the best forage and cover for animals. Avoiding this area also increased

the distance between the generating facility and the closest residents. That distance is now well over a mile. The reduced project size also serves to reduce the level of visual impacts on the SDNM.

The great majority of feedback from people who have heard of these changes has been very positive, particularly with regard to the reduced water usage. People have also expressed a great interest in the jobs this project can bring to the area.

Mr. Stankiewicz will then discuss the fact that as of now, the project does not have a purchase power agreement. It is the view of the Applicant that the right project, in the right location, with a proven developer as a counter-party, would be attractive to load serving entities in the region.

Mr. Stankiewicz will then discuss the proposed time frame for construction. The Applicant is currently permitting this project with the BLM and considering a 2013-2015 construction timeline. The construction period is completely dependent on commercial arrangements and required milestones. Depending on what commercial arrangements, this construction period could be accelerated or delayed. To be safe, the Applicant is requesting a CEC for ten years to allow the flexibility needed to construct on the appropriate timelines.

Sonoran Solar Energy, LLC 500 kV Gen-Tie and Switchyard Project
Docket No. L-00000UU-11-0337-00162
Case No. 162

WITNESS SUMMARY

Of Mark Etherton

Mark Etherton has a bachelor of science in electrical engineering from New Mexico State University with emphasis in power systems. He has been a Registered Professional Engineer, with proficiency in electrical engineering, in Arizona since February, 1990. He is the president of PDS Consulting, located at 3231 S. Country Club Way, Suite 103, Tempe, Arizona. PDS provides consulting services to a wide range of clients, with the bulk of our activity related to generation project transmission interconnections under the FERC Large Generator Interconnection Procedures. PDS is an active member of the WECC and provides a variety of technical studies from feasibility and system impact studies. PDS has worked with most of the transmission owners in the southwestern area of WECC, as well as several developers of solar, wind, and transmission projects.

He has a total of twenty-seven years of electric utility experience, including 10 years as a transmission consultant and 17 years with Salt River Project (SRP), with responsibilities ranging from transmission system planning and related technical analysis, protective relaying, substation design and communications systems, and project management. He has been actively involved with the regional transmission planning organizations, including: WestConnect; Southwest Area Transmission Subregional Planning Group and its various subcommittees; independent power producers and the Arizona Corporation Commission Biennial Transmission Assessment.

Mr. Etherton has testified before the Siting Committee on two previous occasions; Case 126 (the Pinal West to Southeast Valley Project), and Case 145 for the Agua Caliente Solar Project.

PDS provides consulting services to a wide range of clients, with the bulk of its activity related to generation project transmission interconnections under the FERC Large Generator Interconnection Procedures.

Mr. Etherton's role in the project is to assist with the initial feasibility analysis of interconnecting the Project to the electrical system, to prepare the Interconnection Request to SRP as the operator of the Palo Verde Eastern Transmission System (including the Palo Verde-Kyrene 500kV line for which the Jojoba Substation is interconnected), to provide technical modeling data for the Project, to act as third party contractor to perform the System Impact Studies (SIS) to interconnect the Project to the Jojoba Substation, and to provide overall interconnection support to the Project development team as requested.

Mr. Etherton will begin by describing why a transmission interconnection study is needed for this project. He will explain that the entire western United States and parts of Western Canada and Northern Mexico are interconnected into a single transmission system. Arizona is part of this interconnected system. Any anomaly on the system has the potential of affecting other parts of the system, or the system as a whole.

Mr. Etherton will recall August 10, 1996, when a short caused by trees in the Northwest caused a blackout in the entire Western region, including Arizona. More recently a series of events that resulted in the shutdown of nuclear plants in California, resulting in a blackout of much of the San Diego area. Because of this interconnected system, it is important to plan each and every new transmission interconnection, in order to insure that the new interconnection does not degrade the reliability of the transmission grid as a whole.

The process of interconnection involves studies and evaluations by independent parties, and an ultimate approval or disapproval of the interconnection.

Using Exhibit S-022 Mr. Etherton will briefly describe the transmission system in Arizona. Most important on this map is the Palo Verde hub. This is a combination of two Substations near the nuclear plant, the Palo Verde and Hassayampa Substations. Palo Verde serves as a market place for power in the general region. Stability at Palo Verde is a key to stability in the region. From Palo Verde there are a number of lines emanating in and out of the hub. These lines serve the Phoenix and Tucson metropolitan areas as well as California and Nevada. Palo Verde also connects remote generation such as the Navajo and Four Corners generating stations in the North and the Coronado and Springerville generating stations in the East.

Mr. Etherton will then describe the interconnection point for this project. The Jojoba Substation provides a direct link to Palo Verde. It also provides opportunities to deliver power to the east, north and south. This is the perfect location for this project to get its power to most of Arizona, and parts of California and Nevada.

The Jojoba Substation is interconnected to the Hassayampa to Kyrene 500kV line, and two 500kV lines from the Gila River Power Station located approximately 18 miles to the south of the Jojoba Substation, just on the outskirts of the town of Gila Bend. The Hassayampa Substation is located approximately 15 miles to the west (Elliott and 363 Avenue), and the Kyrene Substation approximately 45 miles to the north east, in west Tempe (Elliott and Kyrene). The existing Hassayampa to Pinal West 500kV line crosses immediately to the north of the Jojoba Substation. Mr. Etherton will mention that the line will eventually be connected all the way to Pinal Central and the southeastern part of Phoenix.

Using Exhibit S-023 Mr. Etherton will then describe the process for interconnection to the transmission proposed in this application to the transmission grid. This involved multiple steps.

Step One: The interconnection process began with the filing by the Applicant of a completed generator interconnection application with SRP. The application is filed with SRP because SRP is the Operating Agent for the Palo Verde East Transmission system, which is basically the portion of the grid to the East of Palo Verde. SRP also operates the Jojoba Substation. This filing was made in February 2008. The Sonoran Solar Energy Project was initially proposed to consist of two 270MW steam turbines fueled via a solar collector system; for a net 500MW interconnection request.

Step Two: Following the submittal and acceptance of the Interconnection Request to interconnect to the Jojoba Substation, PDS, proceeded with the preparation of the Study Plan to conduct the power flow, transient stability and short circuit analysis to assess the impacts to the transmission system. Following the completion of the study the plan was submitted to and ultimately approved by SRP and the Western Arizona Transmission System or WATS, technical review group, which is the technical peer review group made up of technical experts from each of the owners of the Palo Verde Eastern Transmission System as oversight to any technical issues related to the Palo Verde Eastern Transmission System. WATS reports to the Engineering and Operating Committee of the PVETS.

The Study Plan included the requirements for the power flow, transient stability and short circuit assessments to be completed as part of the System Impact Study. The WATS group also requires specific requirements for the Palo Verde generation output levels to ensure specific technical studies are examined for any project interconnecting to the PVETS. The Palo Verde Updated Final Safety Analysis was performed to determine the simultaneous Palo Verde Eastern Transmission System safety operating limits following the addition of the Sonoran Solar energy project. The results of the analysis must show the stability of the Palo Verde Nuclear plant is not impacted following the addition of the Sonoran Solar energy Project. The System Impact Study was completed and approved by the WATS technical group in October 2008.

Step Three: With the completion of the System Impact Study for two – 250MW CSP units, NextEra requested to SRP that a supplemental study be completed that would assess the impacts of 1 – 250MW unit and 2 – 125MW units to SRP and the Palo Verde Eastern Transmission System. PDS performed this study.

Step Four: This request was ultimately approved and the subsequent process of approving a Study Plan was achieved via WATS. The supplemental System Impact Study only included transient stability and short circuit analysis due to the fact that the power flow impacts of the solar configuration would not change. The supplemental SIS was completed and ultimately approved by the WATS and PVETS in October 2009.

Step Five: NextEra then requested to proceed to the next step in the interconnection process, the Facilities Study, to determine the physical interconnection requirements for the 500kV interconnection into the Jojoba

Substation. SRP leads this effort on behalf of the Palo Verde Eastern Transmission System. The Facilities Study was ultimately completed and approved in September 2010 with the determination of the specific location to terminate in the Jojoba Substation, cost for the interconnection, and any specifics related to the crossing of existing facilities to terminate in the Jojoba Substation.

Step Six: Following the completion of the Facilities Study, in December 2010, NextEra requested to SRP that an additional assessment be evaluated for the solar facility to be configured as a 500MW photovoltaic facility only, but with the same generation tie line at 500KV and termination at the Jojoba Substation.

Step Seven: The WATS and Palo Verde Eastern Transmission System approved this modification and recommended that an additional supplemental study should be performed that would include only the transient stability component be examined, and that no other assessments were required. The supplemental system impact study was completed and approved by WATS and the Palo Verde Eastern Transmission System in May 2011.

Step Eight: Most recently, NextEra has submitted a request to SRP to reduce the total amount of solar to be constructed at the site from 500MW to 300MW. The request does not impact the interconnection of the generation tie line into the Jojoba Substation, and in my opinion also reduces the overall impact even more for the interconnection. SRP is pending review of this request. This approval is still pending. However approval is a certainty as the interconnection at 500MW has already been approved. Nonetheless, we are required to go through this process.

Mr. Etherton will then conclude that the results of the technical analysis performed to date show, and with peer review from the WATS group, that (i) there are no impacts to the system under normal, single or multiple contingency outage conditions; (ii) no transient or post-transient related impacts to the PVETS or regional transmission system; (iii) no impacts related to short circuit duty impacts to the existing system; and that (iv) the proposed Project meet all applicable NERC; WECC and PVETS reliability criteria.

Finally, Mr. Etherton will introduce the two ten year plans filed with the Corporation Commission, Exhibits S-029 and S-030.

Sonoran Solar Energy, LLC 500 kV Gen-Tie and Switchyard Project
Docket No. L-00000UU-11-0337-00162
Case No. 162

WITNESS SUMMARY

Paul Trenter and Devin Petry
Environmental Planning Group

Paul Trenter received a BS in Landscape Architecture from the University of Wisconsin. He is a principal at EPG, with 23 years of experience in environmental planning and permitting with major utility projects. He has managed or participated in over 50 major transmission line projects. Mr. Trenter has provided testimony seven times before this Committee, the most recent being Case 135: Palo Verde Hub to North Gila Substation 500kV Transmission Project.

Devin Petry received a BA in Geography from the University of Arizona. He is a Project Manager at EPG, with four years of experience in environmental planning and permitting. He has managed or participated in over 25 environmental planning projects.

EPG is an interdisciplinary planning and permitting firm with offices in six states across the western United States, headquartered in Phoenix, Arizona. EPG personnel have provided testimony for over 30 years before this committee.

EPG is retained by Sonoran Solar Energy LLC to perform the environmental resource inventories and studies, and to prepare the CEC Application for this Project. EPG's testimony before the Committee will include information on the Project's NEPA process, the environmental studies completed, and the overall compatibility of the Sonoran Solar Generation Tie Line Project (gen-tie).

The Federal NEPA Process

Because of the fact that the majority of the Project is on Bureau of Land Management land, the Project triggered a process under the National Environmental Policy Act. As a result of the right-of-way grant being filed with the BLM Lower Sonoran Field Office, the BLM as the lead federal agency decided that an Environmental Impact Statement (EIS) would be required for the entire solar facility and generation tie line. Currently, the cooperating agencies include the Arizona Game and Fish, the Town of Buckeye, and the City of Goodyear.

The essential purpose of the EIS is to ensure that environmental resources and alternatives are considered equally in the decision making process undertaken by federal agencies. The EIS requires federal notice, public scoping meetings, and hearings on the draft EIS.

The draft EIS for this Project was released in April 2010. Comments were received on the draft environmental impact statement and incorporated into the final EIS. The final EIS was released October 2011, with a BLM Record of Decision expected by the end of the year. The final EIS is marked as Exhibit S-028.

The Project was first envisioned as a concentrating solar thermal project. In early 2011, a photovoltaic alternative was added. In the final EIS the photovoltaic alternative was selected as the preferred alternative.

The EPG Environmental Evaluation

As the environmental consultant for this Project, EPG assisted with a statewide site selection process for Sonoran Solar Energy, LLC which identified six locations on BLM lands. All six of the locations had a ROW application filed with the BLM. The primary criteria for selecting the Project location included the following: excellent solar resource availability; proximity to high-voltage transmission infrastructure; large, contiguous land parcel with minimal slope, absence of unique or highly sensitive environmental resources, proximity to other industrial facilities (existing transmission/pipelines, landfill, mineral processing plant, and prisons), proximity to major road networks, and proximity to electrical load centers.

Once the Project site was selected, the focus shifted to the identification of potential transmission routes to connect the solar site to the Jojoba 500kV Substation. As the majority of the area between the solar site and the Jojoba 500kV Substation is a designated BLM utility corridor, the potential routing options were easily narrowed. Sonoran sought to maximize the use of these existing utility corridors, consistent with the BLM's expressed preference.

Two transmission route options were identified; the proposed route maximizes the use of the BLM designated utility corridor, paralleling exiting facilities to a greater extent, and traveling a shorter overall distance. An alternative route was also identified, a majority of which also is contained within the BLM designated utility corridor, however parallels less existing transmission lines.

EPG initiated environmental studies and inventories to assess the existing conditions in the Project area as they pertain to Land Use and Recreation, Visual Resources, Biological Resources, and Cultural Resources. Once an inventory of existing conditions was obtained, the potential impacts associated with the 500kV generation tie line were studied in detail. The results of these studies are contained in exhibits A, B, C, D, E, and F of the CEC Application.

Regarding existing Land Use and Recreation (Exhibits B and F in the CEC Application), the gen-tie line conforms with the BLM Resource Management Plan and the Town of Buckeye General Plan. The Project is located primarily on BLM land within an existing designated BLM utility corridor and parallels existing 500kV transmission lines. The primary land uses within the study area include industrial facilities such as the Jojoba Substation, 500kV transmission lines, natural gas pipelines, a mineral processing facility and mine, and the Southwest Regional Landfill. There will be minimal impacts to land use, dispersed recreation, and grazing, and the nearest residence to the gen-tie line is over three miles away.

Regarding future land use, planned development in the study area includes the potential expansion of the Southwest Regional Landfill, a future 500kV transmission line, and the conceptual Hassayampa Freeway. Based on coordination with jurisdictions and local land owners within the study area there will be no adverse impact on planned land uses.

With respect to visual resources, EPG completed a Visual Resource Analysis for the Sonoran Solar Energy Project, using the BLM Visual Resource Management (VRM) System as the basis for analysis. The proposed gen-tie is located within the BLM VRM Class IV area, which allows for maximum modification. The proposed gen-tie primarily crosses areas of average to low scenic quality, which is already dominated by existing 500kV transmission lines within the BLM designated utility corridors. Views from trails within the Sonoran Desert National Monument are completely screened by the existing topography. Minimal visual impacts are expected as a result of the gen-tie line. Visual simulations can be found in Exhibit G of the CEC Application,

With respect to biological resources, EPG conducted field reviews and surveys and coordinated with the BLM, the Arizona Game and Fish Department, and the United States Fish and Wildlife Service. As a result of the information gathered from field studies and coordination with agencies, it has been determined that the Project area contains no suitable habitat for, and will have no adverse effects to, any Threatened or Endangered, or Special Status species, and will result in minimal impacts to biological resources as a whole.

Because of the potential for some species to wander across or near the Project area, particularly within a large wash to the east of the Project site that was avoided in project design, Sonoran Solar Energy, LLC has worked directly with the Arizona Game and Fish Department to develop a Project level mitigation protocol to further study specific animal species in the Project vicinity.

With respect to cultural resources, In order to analyze the effects of the proposed gen-tie (and Solar Project) to cultural resources, EPG completed Class I and Class III cultural surveys. No National Register of Historic Places-eligible sites will be affected by the gen-tie line alternatives. Through the Section 106 cultural consultation process, BLM and the State Historic Preservation Office concluded that the Project has minimal impacts to cultural resources and meets SHPO guidelines, through the implementation of a Historic Properties Treatment Plan.

Regarding radio interference and noise, the proposed and alternative gen-ties will have no impacts unusual to a typical 500kV transmission line, and the nearest residences are approximately 3 miles to the east.

In the professional opinion of EPG, of Mr. Trenter and of Mr. Petry, based on EPG's analysis, each of the generation tie line alternatives and the Project Substation are environmentally compatible with the factors set forth in A.R.S. § 40-360-06, and consistent with previous projects approved by this committee.